

IN THE CLAIMS:

Claim 19 has been amended. Claims 34 - 37 have been added.

Claims 1 – 18 (cancelled).

19. (currently amended) A method of making a radiation source, said method comprising:

positioning a substrate relative to a liquid deposition head, said liquid deposition head having an opening through which a deposited solution may be deposited onto a portion of a front surface of said substrate;

depositing said deposited solution onto said front surface to form a specified radioactive deposit;

removing a solvent from said deposited solution;

fixing the position of said radioactive deposit on said front surface;

opening ~~[[a]]~~ an outer housing having a fastener; and

placing said substrate within said outer housing, said the outer housing having a radiotranslucent top to allow radiation from said radioactive deposit to pass through the outer housing.

20. (original) The method according to claim 19, wherein said substrate is initially blank.

21. (original) The method according to claim 19, wherein said substrate is initially imprinted with a depleted radioactive deposit, and further including:

measuring the activity distribution of said depleted radioactive deposit; and

designing said specified radioactive deposit based on the difference between a desired radioactive deposit and said depleted radioactive deposit.

22. (original) The method according to claim 19, positioning said substrate including moving said substrate using a feeding mechanism.

23. (original) The method according to claim 22, wherein said feeding mechanism is a roller, and moving said substrate includes placing said substrate in contact with a roller and causing said roller to rotate.

24. (original) The method according to claim 23, wherein said substrate has a back surface, and said roller is only in contact with said back surface of said substrate.

25. (original) The method according to claim 19, wherein said substrate is flexible.

26. (previously presented) The method according to claim 19, wherein fixing said position of said radioactive deposit on said front surface includes applying a sealing layer to cover said radioactive deposit and said front surface.

27. (previously presented) The method according to claim 19, wherein fixing said position of said radioactive deposit on said front surface includes mixing a binding agent into said deposited solution prior to depositing said deposited solution on said front surface of said substrate.

28. (original) The method according to claim 19, further including dissolving a compound containing a radioisotope in a solvent.

29. (original) The method according to claim 19, further including dissolving a compound containing a radioisotope precursor in a solvent and irradiating said radioisotope precursor to transform it into a radioisotope.

30. (original) The method according to claim 19, further including adsorbing a radioisotope to a particulate and dispersing said particulate in said deposited solution.

31. (original) The method according to claim 19, further including:  
receiving a depleted substrate having a depleted radioactive deposit; and  
measuring the activity distribution of said depleted radioactive deposit, wherein  
said specified radioactive deposit is designed based on the difference between a  
desired radioactive deposit and said depleted radioactive deposit.

32. (original) The method according to claim 31, wherein said substrate is said  
depleted substrate.

33. (original) The method according to claim 19, wherein said substrate is in the  
form of a continuous web, and said method further including cutting said substrate to fit  
within said outer housing.

34. (new) The method according to claim 19, wherein the outer housing further  
includes a border, the border being radiopaque to minimize the transmission of  
radiation from said radioactive deposit.

35. (new) The method according to claim 34, wherein the border on the outer  
housing further includes handles to allow easily handling of the outer housing.

36. (new) The method according to claim 19, wherein said outer housing further  
includes a radiopaque bottom surface to minimize radiation from said radioactive  
deposit from passing through the bottom of the outer housing.

37. (new) A method of making a radiation source, said method comprising:  
positioning a substrate relative to a liquid deposition head, said liquid deposition  
head having an opening through which a deposited solution may be deposited onto a  
portion of a front surface of said substrate;

depositing said deposited solution onto said front surface to form a specified

radioactive deposit;

removing a solvent from said deposited solution;

fixing the position of said radioactive deposit on said front surface;

opening an outer housing having a fastener; and

placing said substrate within said outer housing, wherein said substrate includes a radiopaque back surface to minimize radiation from being transmitted through a back surface of the outer housing.